IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1. (Currently Amended) A motion detection apparatus for detecting a motion in an image frame inputted and stored in a time series, said apparatus comprising:

a frame division ~~means~~ section for dividing the inputted X-th image frame F(X) into a plurality of blocks B(X)ij, where i=1 to m and j=1 to n;

a block luminance acquisition ~~means~~ section for acquiring representative luminance values BLrep(X)ij of said blocks B(X)ij;

a frame luminance acquisition ~~means~~ section for acquiring a representative luminance value FLrep(X) of said inputted frame F(X);

a storing ~~means~~ section for storing BL(X)ij and FLrep(X);

a block luminance difference calculation ~~means~~ section for calculating block luminance differences ΔBLrep(X)ij between corresponding blocks in F(X) and a frame prior to F(X);

a frame luminance difference calculation ~~means~~ section for calculating a frame luminance difference ΔFLrep(X) between F(X) and a frame prior to F(X);

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an absolute difference calculation ~~means~~ section for
calculating absolute values $|\Delta BLrep(X)ij-\Delta FLrep(X)|$;

a determination ~~means~~ section for determining that a certain
block includes a motion, if said absolute value for said certain
block is greater than a prescribed threshold; and

an output ~~means~~ section for outputting the determination
result, wherein:

said determination section determines that:

said certain block includes a motion, if said absolute
value for said certain block is greater than a second
threshold and moreover if either or both of said
representative block luminance values of the corresponding
certain blocks in F(X) and a frame prior to F(X) is/are
greater than a first threshold, where said first threshold
is greater than said second threshold; or

said certain block includes a motion, if said absolute
value for said certain block is greater than a third
threshold and moreover if both of said representative
luminance values of the corresponding certain blocks in F(X)
and a frame prior to F(X) are smaller than or equal to a
first threshold, where said second threshold is greater than
said third threshold.

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2.   (Canceled).

3.   (Original)   The motion detection apparatus according to claim 1, wherein said representative luminance value is an average, mode or median of luminance values.

4.   (Original)   The motion detection apparatus according to claim 1, wherein said frame prior to said present frame $F(X)$ is a frame $F(X-1)$ just prior to $F(X)$ or a frame $F(X-k)$ which is "k" frames prior to $F(X)$, where "k" is greater than or equal to two.

5.   (Currently Amended)   A <u>computer readable medium storing a</u> motion detection computer program for detecting a motion in <u>an</u> image frame inputted and stored in a time series, <u>said program</u> comprising the steps of:

a frame division step for dividing the inputted X-th image frame $F(X)$ into a plurality of blocks $B(X)ij$, where $i=1$ to m and $j=1$ to n;

a block luminance acquisition step for acquiring representative luminance values $BLrep(X)ij$ of said blocks $B(X)ij$;

a frame luminance acquisition step for acquiring a representative frame luminance value $FLrep(X)$ of said inputted frame $F(X)$;

a storing step for storing BL(X)ij and FLrep(X);

a block luminance difference calculation step for calculating block luminance differences ΔBLrep(X)ij between corresponding blocks in F(X) and a frame prior to F(X);

a frame luminance difference calculation step for calculating a frame luminance difference ΔFLrep(X) between F(X) and a frame prior to F(X);

an absolute difference calculation step for calculating absolute values |ΔBLrep(X)ij-ΔFLrep(X)|;

a determination step for determining that a certain block includes a motion, if said absolute value for said certain block is greater than a prescribed threshold; and

an output step for outputting the determination result, wherein:

said determination step determines that:

said certain block includes a motion, if said absolute value for said certain block is greater than a second threshold and moreover if either or both of said representative block luminance values of the corresponding certain blocks in F(X) and a frame prior to F(X) is/are greater than a first threshold, where said first threshold is greater than said second threshold; or

said certain block includes a motion, if said absolute value for said certain block is greater than a third threshold and moreover if both of said representative luminance values of the corresponding certain blocks in F(X) and a frame prior to F(X) are smaller than or equal to a first threshold, where said second threshold is greater than said third threshold.

6. (Cancelled).

7. (Currently Amended) The computer readable medium storing the motion detection computer program according to claim 5, wherein said representative luminance value is an average, mode or median of luminance values.

8. (Currently Amended) The computer readable medium storing the motion detection computer program according to claim 5, wherein said frame prior to said present frame F(X) is a frame F(X-1) just prior to F(X) or a frame F(X-k) which is "k" frames prior to F(X), where "k" is greater than or equal to two.